

In the outstanding Office Action, the Examiner objected to claims 41-43, 45, 46, and 49, under 37 CFR 1.75(c) as being in improper form and objected to claim 33 because of improper dependency. In addition, claims 25-35 and 37-39 were rejected under 35 U.S.C. 112, second paragraph, for being indefinite. Also, claims 25-27, 29-33, 37, 39, 40, 47, 48, 55-57, 64-68, 73, and 74 were rejected under 35 U.S.C. 102(e) as being anticipated by Ahmed et al. Finally, claim 38 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed et al., taken further in view of Schaar.

Applicant respectfully requests the Examiner to favorably reconsider the above objections and rejections in view of the following amendments to the claims and remarks.

Please amend the instant application as follows:

CLAIM AMENDMENTS:

Please amend claim 25 as follows:

25. (once amended) A product for absorbing liquids comprising a substrate of a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder.

Please amend claim 27 as follows:

27. (once amended) The product of claim 26, wherein said [combination] substrate comprises a coextruded fibrous material having a non-superabsorbent polymeric core and a superabsorbent polymeric outer layer.

Please amend claim 32 as follows:

32. (once amended) The product of claim 25, wherein said powder and said substrate of a polymeric material are comprised of superabsorbent polymers.

Please amend claim 33 as follows:

33. (once amended) The product of claim [25] 33, wherein said superabsorbent polymers are essentially the same polymer.

Please amend claim 34 as follows:

34. (once amended) The product of claim 25, wherein said [polymeric material] substrate is at least partially foamed.

Please amend claim 40 as follows:

40. (once amended) A liquid absorbent composite product comprising:
- a) A liquid permeable first sheet;
 - b) A second sheet attached to said first sheet; and
 - c) A liquid absorbent core disposed between said first and second sheets; said core comprising a substrate of a polymeric material having a coating of an at least partially cured resin having superabsorbent polymeric powder adhered to said coating.

Please cancel claims 41-43, 45, 46, and 49.

Please amend claim 55 as follows:

55. (once amended) A cleaning product for absorbing aqueous liquids comprising a substrate of a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder having a particle size distribution sufficient to form a gel upon contact with an aqueous solution.

Please amend claim 64 as follows:

64. (once amended) An absorbent product comprising [a] an expanded polymeric material having a superabsorbent polymeric material incorporated therein.

Please cancel claim 68.

Please amend claim 73 as follows:

73. (once amended) An absorbent product comprising a substrate of a polymeric material having a coating comprising a superabsorbent polymeric powder and an at least partially cured resinous material.

Please cancel claim 74.

Please add the following new claims:

81. The product of claim 40, wherein said core was made by the following process:
- a) Providing a substrate of a polymeric material;

- b) Applying a curable liquid resin to a surface portion of said substrate to form a coating thereon;
 - c) Applying a superabsorbent polymeric powder to a surface portion of said coating; and
 - d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a substrate having a cured resinous coating and superabsorbent polymeric powder stably adhered to said substrate.
82. The product of claim 40, wherein said core was made by the following process:
- a) Providing a substrate of a polymeric material;
 - b) Applying a solution of a curable resin in a solvent to a surface portion of said substrate to form a coating thereon;
 - c) Evaporating at least a portion of said solvent;
 - d) Applying a superabsorbent polymeric powder to a surface portion of said coating; and
 - e) Causing said superabsorbent polymeric powder to be adhered to said coating surface portion by at least partially curing said coating following application of said superabsorbent polymeric powder thereby forming a substrate having an at least partially cured resinous coating and superabsorbent polymeric powder stably adhered to said substrate.
83. The product of claim 82, wherein said resinous coating is cured.
84. The product of claim 82, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than 850 microns.

85. The product of claim 82, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than 200 microns.
86. The product of claim 64, wherein said absorbent product is a diaper.
87. The absorbent product of claim 73, wherein said absorbent product comprises a diaper.

CLAIMS LISTING

- Claim 1 (withdrawn) A process for adhering superabsorbent polymeric powder onto polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a curable liquid resin to a surface portion of said polymeric material to form a coating thereon;
 - (c) Applying a superabsorbent polymeric powder to a surface portion of said coating; and
 - (d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a cured resinous coating and powder stably adhered to said polymeric material.
- Claim 2 (withdrawn) The process of claim 1, wherein said curing is at least partially caused by radiation curing.
- Claim 3 (withdrawn) The process of claim 1, wherein said powder and said polymeric material comprise the same polymer.
- Claim 4 (withdrawn) The process of claim 1, wherein said powder is subjected to an electrostatic charge prior to being applied to said surface portion of said coating.

- Claim 5 (withdrawn) The process of claim 1, wherein said polymeric material is selected from the group consisting of superabsorbent polymers, non-superabsorbent polymers, and a combination thereof.
- Claim 6 (withdrawn) The process of claim 5, wherein said combination comprises a coextruded fiber having a non-superabsorbent polymeric core and a superabsorbent polymeric outer layer.
- Claim 7 (withdrawn) The process of claim 1, wherein said polymeric material is at least partially foamed.
- Claim 8 (withdrawn) The process of claim 1, wherein said powder is at least partially foamed.
- Claim 9 (withdrawn) The process of claim 7, wherein said powder is at least partially foamed.
- Claim 10 (withdrawn) The process of claim 1, wherein said powder has a particle size distribution with a large proportion of its particles less than 850 microns.
- Claim 11 (withdrawn) The process of claim 1, wherein said powder has a particle size distribution wherein a large proportion of its particles are below about 200 microns.
- Claim 12 (withdrawn) The process of claim 1, wherein said powder has a particle size distribution wherein a large proportion of its particles are below about 100 microns.

- Claim 13 (withdrawn) The process of claim 1, wherein said curable resin is a liquid selected from the group consisting of acrylates, unsaturated polyesters, epoxies, urethanes, acrylics, a monomer-containing liquid capable of forming a superabsorbent polymer upon polymerization, and mixtures thereof.
- Claim 14 (withdrawn) The process of claim 13, wherein said curable liquid resin comprises a urethane.
- Claim 15 (withdrawn) The process of claim 13, wherein said curable liquid resin comprises a monomer-containing liquid capable of forming a superabsorbent polymer upon polymerization.
- Claim 16 (withdrawn) A process for coating a superabsorbent polymer on polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a monomer-containing liquid resin onto a surface portion of said polymeric material to form a coating thereon; and
 - (c) Curing said monomer-containing liquid resin to polymerize said resin into a superabsorbent polymer, thereby forming a coating on said polymeric material.
- Claim 17 (withdrawn) The process of claim 16, wherein said curing is caused by radiation.
- Claim 18 (withdrawn) The process of claim 16, which further includes the step of applying a superabsorbent polymeric powder to said liquid resin prior to curing.

- Claim 19 (withdrawn) The process of claim 18, wherein said powder is subjected to an electrostatic charge prior to being applied to said surface portion of said coating.
- Claim 20 (withdrawn) A product made by the process of claim 16.
- Claim 21 (withdrawn) A product made by the process of claim 18.
- Claim 22 (withdrawn) A process for adhering superabsorbent polymeric powder onto polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a solution of a curable resin in a solvent to a surface portion of said polymeric material to form a coating thereon;
 - (c) Evaporating at least a portion of said solvent;
 - (d) Applying a superabsorbent polymeric powder to a surface portion of said coating; and
 - (e) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a cured resinous coating and powder stably adhered to said polymeric material.
- Claim 23 (withdrawn) The process of claim 22, wherein said solution comprises polyacrylic acid dissolved in water.
- Claim 24 (withdrawn) A product made by the process of claim 1.

- Claim 25 (currently amended) A product for absorbing liquids comprising a substrate of a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder.
- Claim 26 (original) The product of claim 25, wherein said polymeric material is selected from the group consisting of superabsorbent polymers, non-superabsorbent polymers, and a combination thereof.
- Claim 27 (currently amended) The product of claim 26, wherein said ~~combination~~ substrate comprises a coextruded fibrous material having a non-superabsorbent polymeric core and a superabsorbent polymeric outer layer.
- Claim 28 (withdrawn) The product of claim 25, wherein said polymeric material contains at least a foamed portion.
- Claim 29 (original) The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 850 microns.
- Claim 30 (original) The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 200 microns.
- Claim 31 (original) The product of claim 25, wherein said powder has a particle size distribution with a large proportion of its particles less than 100 microns.
- Claim 32 (currently amended) The product of claim 25, wherein said powder and said substrate of a polymeric material are comprised of superabsorbent polymers.

- Claim 33 (currently amended) The product of claim 25 33, wherein said superabsorbent polymers are essentially the same polymer.
- Claim 34 (currently amended) The product of claim 25, wherein said ~~polymeric material~~ substrate is at least partially foamed.
- Claim 35 (withdrawn) The product of claim 32, wherein said powder is at least partially foamed.
- Claim 36 (original) The product of claim 34, wherein said foam comprises a water-swallowable, water-insoluble polymer wherein the water-swallowable, water-insoluble polymer is present in the absorbent foam in a weight amount between about 50 weight percent to 100 weight percent, based on the total weight of the absorbent foam, and wherein the absorbent foam exhibits a free swell value of at least about 10 grams of liquid per gram of absorbent foam and a softness value that is less than about 30 grams of force per square meter of the absorbent foam.
- Claim 37 (original) The product of claim 25, wherein said at least partially cured resin is selected from the group consisting of acrylates, unsaturated polyesters, epoxies, urethanes, acrylics, superabsorbent polymers, and mixtures thereof.
- Claim 38 (original) The product of claim 37, wherein said at least partially cured resin comprises a urethane.
- Claim 39 (original) The product of claim 37, wherein said at least partially cured resin comprises a superabsorbent polymer.

- Claim 40 (currently amended) A liquid absorbent composite product comprising:
- (a) A liquid permeable first sheet;
 - (b) A second sheet attached to said first sheet; and
 - (c) A liquid absorbent core disposed between said first and second sheets; said core comprising a substrate of a polymeric material having a coating of an at least partially cured resin having superabsorbent polymeric powder adhered to said coating.
- Claim 41-43 (canceled)
- Claim 44 (withdrawn) The product of claim 40, wherein said core comprises the product of claim 28.
- Claim 45-46 (canceled)
- Claim 47 (original) The product of claim 40, wherein said composite product is a diaper.
- Claim 48 (original) The product of claim 40, wherein said composite product is a cleaning product.
- Claim 49 (canceled)

Claim 50 (withdrawn)

A process for making a cleaning product, comprising:

- (a) Providing a polymeric material;
- (b) Applying a curable liquid resin to a surface portion of said polymeric material to form a coating thereon;
- (c) Applying a superabsorbent polymeric powder to a surface portion of said coating, said powder having a particle size distribution sufficient to form a gel upon contact to aqueous solutions; and
- (d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a polymeric material having a coating and powder stably adhered to said polymeric material.

Claim 51 (withdrawn)

The process of claim 50, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 200 microns.

Claim 52 (withdrawn)

The process of claim 50, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 100 microns.

Claim 53 (withdrawn)

The process of claim 50, wherein said curing is effected by radiation.

Claim 54 (withdrawn)

The process of claim 50, wherein said powder is electrostatically charged prior to applying said powder to said coating.

- Claim 55 (currently amended) A cleaning product for absorbing aqueous liquids comprising a substrate of a polymeric material having a coating of an at least partially cured resin stably adhered to a superabsorbent polymeric powder having a particle size distribution sufficient to form a gel upon contact with an aqueous solution.
- Claim 56 (original) The product of claim 55, wherein said particle size distribution of said powder with a large proportion of its particles less than about 200 microns.
- Claim 57 (original) The product of claim 55, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than about 100 microns.
- Claim 58 (withdrawn) A process for incorporating superabsorbent polymeric material into polymeric material comprising treating a polymeric material with a supercritical fluid containing superabsorbent polymeric material to cause said superabsorbent polymeric material to be incorporated into said polymeric material.
- Claim 59 (withdrawn) The process of claim 58, wherein said fluid comprises carbon dioxide.
- Claim 60 (withdrawn) The process of claim 58, wherein said superabsorbent polymeric material is a preformed powder that is mixed with said supercritical fluid.
- Claim 61 (withdrawn) The process of claim 58, wherein said superabsorbent polymeric material is generated *in situ* in said supercritical fluid.

Claim 62 (withdrawn)	The process of claim 61, wherein said superabsorbent polymeric material comprises a powder.
Claim 63 (withdrawn)	The process of claim 58, wherein said polymeric material comprises a fiber.
Claim 64 (currently amended)	An absorbent product comprising a <u>an expanded</u> polymeric material having a superabsorbent polymeric material incorporated therein.
Claim 65 (original)	The product of claim 64, wherein said polymeric material comprises a fiber.
Claim 66 (original)	The product of claim 64, wherein said superabsorbent polymeric material comprises a particle.
Claim 67 (original)	The product of claim 64, wherein said superabsorbent polymeric material comprises a film.
Claim 68 (canceled)	

- Claim 69 (withdrawn) A process for adhering superabsorbent polymeric powder onto polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a superabsorbent polymeric powder to a surface portion of said polymeric material;
 - (c) Coating said powder coated polymeric material with a resinous material; and
 - (d) Causing said superabsorbent polymeric powder to be contained or adhered to said polymeric material by at least partially curing said resinous material.
- Claim 70 (withdrawn) The process of claim 69, wherein said polymeric material is liquid permeable.
- Claim 71 (withdrawn) The process of claim 69, wherein said resinous material comprises a liquid.
- Claim 72 (withdrawn) The process of claim 69, wherein said resinous material comprises a powder.
- Claim 73 (currently amended) An absorbent product comprising a substrate of a polymeric material having a coating comprising a superabsorbent polymeric powder and an at least partially cured resinous material.
- Claim 74 (canceled)

- Claim 75 (withdrawn) A process for adhering superabsorbent polymeric powder onto polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a superabsorbent polymeric powder which is coated with liquid resinous material to a surface of said polymeric material; and
 - (c) Causing said applied powder to adhere to said polymeric material by at least partially curing said liquid resinous material.
- Claim 76 (withdrawn) A product made by the process of claim 75.
- Claim 77 (withdrawn) A process for adhering a superabsorbent polymeric powder onto a polymeric material comprising:
- (a) Providing a polymeric material;
 - (b) Applying a mixture comprising a superabsorbent polymeric powder and a resinous coating powder to a surface of said polymeric material; and
 - (c) Causing said applied powder mixture to adhere to said polymeric material by at least partially curing said powder, thereby obtaining a coating comprising a cured coating powder containing said superabsorbent polymeric powder.

- | | |
|----------------------|--|
| Claim 78 (withdrawn) | The process of claim 77, further comprising electrostatically charging said powder mixture prior to applying said mixture to said polymeric material. |
| Claim 79 (withdrawn) | The process of claim 77, wherein said curing is effected by radiation. |
| Claim 80 (withdrawn) | The product made by claim 77. |
| Claim 81 (new) | <p>The product of claim 40, wherein said core was made by the following process:</p> <ul style="list-style-type: none"> (a) Providing a substrate of a polymeric material; (b) Applying a curable liquid resin to a surface portion of said substrate to form a coating thereon; (c) Applying a superabsorbent polymeric powder to a surface portion of said coating; and (d) Causing said powder to be adhered to said coating surface portion by at least partially curing said coating following application of said powder thereby forming a substrate having a cured resinous coating and superabsorbent polymeric powder stably adhered to said substrate. |

Claim 82 (new)

The product of claim 40, wherein said core was made by the following process:

- (a) Providing a substrate of a polymeric material;
- (b) Applying a solution of a curable resin in a solvent to a surface portion of said substrate to form a coating thereon;
- (c) Evaporating at least a portion of said solvent;
- (d) Applying a superabsorbent polymeric powder to a surface portion of said coating; and
- (e) Causing said superabsorbent polymeric powder to be adhered to said coating surface portion by at least partially curing said coating following application of said superabsorbent polymeric powder thereby forming a substrate having an at least partially cured resinous coating and superabsorbent polymeric powder stably adhered to said substrate.

Claim 83 (new)

The product of claim 82, wherein said resinous coating is cured.

Claim 84 (new)

The product of claim 82, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than 850 microns.

Claim 85 (new)

The product of claim 82, wherein said superabsorbent polymeric powder has a particle size distribution with a large proportion of its particles less than 200 microns.

Claim 86 (new)

The product of claim 64, wherein said absorbent product is a diaper.

Claim 87 (new)

The absorbent product of claim 73, wherein said absorbent product comprises a diaper.